WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

a silicon-on-insulator substrate including a base substrate, an insulating layer over the base substrate, and a semiconductor layer over the insulating layer;

electric circuit formed over the silicon-on-insulator substrate;

a plurality of semiconductor islands used as element-forming regions in a first area of the silicon-on-insulator substrate; and

a plurality of first bipolar transistors formed in the respective semiconductor islands, and having respective an emitter region, a base region, and a collector region formed in the semiconductor layer;

wherein the plurality of semiconductor islands are isolated each other by element isolation grooves reaching the isolation layer of the silicon-on-insulator substrate; and

the emitter regions, the base regions, and the collector regions of the plurality of the first bipolar transistors are electrically connected by interconnection wirings respectively.

2. The semiconductor device according to claim 1, wherein the semiconductor islands are substantially same in size.

3. The semiconductor device according to claim 2, wherein the emitter regions, the base regions, and the collector regions of the plurality of the first bipolar transistors are connected in parallel;

the plurality of the first bipolar transistors function as a singular bipolar transistor; and

the electric circuit includes the singular bipolar transistors.

4. The semiconductor device according to claim 3, wherein the first bipolar transistor is a unit bipolar transistor constituting the singular bipolar transistor.

5. The semiconductor device according to claim 1, wherein the silicon-on-insulator substrate further includes a second area; and

A MOSFET is formed in the second area.

6. A semiconductor device comprising:

a silicon-on-insulator substrate including a base substrate, an insulating layer over the base substrate, and a semiconductor layer over the insulating layer;

electric circuit formed over the silicon-on-insulator substrate;

a plurality of semiconductor islands used as element-forming regions, and being isolated each other by element isolation grooves reaching the isolation layer of the silicon-on-insulator substrate; and

a plurality of first transistors formed in respective semiconductor islands, and having respective a first electrode, a second electrode, and a third electrode formed over the silicon-on-insulator substrate;

wherein the first electrodes, the second electrodes, and the third electrodes of the plurality of the first transistors are electrically connected by interconnection wirings respectively;

the plurality of the first transistors function as a singular transistor; and

the electric circuit includes the singular transistor.

7. The semiconductor device according to claim 6, wherein the semiconductor islands are substantially same in size; and

the first transistor is a unit transistor constituting the singular transistor.

8. The semiconductor device according to claim 7, wherein the transistor is a bipolar transistor; and

the first electrode, the second electrode, and the third electrode are an emitter electrode, a base electrode, and a collector electrode of the bipolar transistor respectively.